



UNITED STATES PATENT AND TRADEMARK OFFICE

II-AP6.001C1 JP

TRA/RBH/TRA

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22343-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/771,309	01/26/2001	Kazuo Taguchi	IIDAP6.001C1	7653
------------	------------	---------------	--------------	------

20995 7590 10/24/2003

KNOBBE MARTENS OLSON & BEAR LLP  
2040 MAIN STREET  
FOURTEENTH FLOOR  
IRVINE, CA 92614

EXAMINER

MORILLO, JANEL A

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



Application No.

09/771,309

Applicant(s)

TAGUCHI ET AL.

Examiner

Janelle Combs-Morillo

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,5,7,8,10-12,14,18 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,5,7,8,10-12,14,18,21-26,28 is/are allowed.
- 6) ☒ Claim(s) 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 7/28/03 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. The drawing correction submitted July 28, 2003 is approved.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sircar (US 5,976,278) in view of JP 61-119645A (JP'645) and optionally "Aluminum and Aluminum alloys".

Sircar teaches that following homogenization and extrusion, cold working by drawing (column 6 lines 5-6, column 5 lines 55-57) without localized deformation or necking (column 5 line 57), and thereby obtaining a tube product with an improved surface structure and higher yield (column 5 lines 66-67, column 6 line 1). Sircar teaches that it is conventional for 3000 series type heat exchanger tubes to be hot deformed (by extrusion) and then cold worked (by drawing) at column 3 lines 39-57.

Sircar teaches a composition consisting essentially of:  $\leq 0.03\%$  Cu, 0.1-1.5% Mn, 0.03-0.35% Ti, up to 1% Mg, 0.06-1.0% Zn,  $<0.01\%$  Ni, up to 0.3% Zr, up to 0.5% Fe, up to 0.5% Si (abstract, etc.), which overlaps the presently claimed composition ranges.

Art Unit: 1742

Sircar does not mention a) extruding by “port hole” extrusion, or b) the difference in electrical conductivity of individual portions in a lengthwise direction or the electrical conductivity value of said Al-Mn alloy processed by homogenizing, extruding, and drawing.

However, concerning item a), JP’645 teaches that port hole extrusion can be applied to 3000 series alloys that overlap the instant alloying ranges, and is used for producing seamed piping connectors for heat exchanger applications (abstracts, Fig. 1-3). It would have been obvious to one of ordinary skill in the art to perform port hole extrusion, as taught by JP’645, after the homogenization cycle of Sircar because Sircar teaches said alloy is how deformed by extrusion, and JP’645 teaches that similar 3000 alloys are suitable for “port hole” type extrusion.

Concerning item b), the examiner submits that because Sircar and JP’645 teach substantially the same process performed on a substantially overlapping alloy composition, then substantially the same properties, such as a homogeneous conductivity profile and electrical conductivity, is expected to occur. The examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Alternatively, concerning item b), “Aluminum and Aluminum Alloys” at page 68 teaches that electrical conductivity for various 3000 series alloys typically range from 40-50% IACS, depending on the temper. It would have been within the level of one of ordinary skill in the art to

Art Unit: 1742

perform the process taught by Sircar and JP'645 of homogenizing, port hole extruding, and drawing, on the Al-Mn alloy taught by Sircar (see above), thereby obtaining a electrical conductivity  $\geq 39\%$  IACS, because "Aluminum and Aluminum Alloys" at page 68 teaches that electrical conductivity for substantially similar 3000 series alloys typically range from 40-50% IACS.

***Response to Amendment/Arguments***

4. In the response filed on July 28, 2003 applicant amended claims 2, 3, 7, 8, canceled claims 4, 9, 13, 15-17, 19, 20, and added new claims 23-28.

The argument that the prior art does not teach or suggest the presently claimed method of homogenizing and extruding the presently claimed alloy composition, substantially as set forth in independent claims 2, 3, 7, or 8 (see in particular arguments pages 11-15), has been found persuasive.

***Allowable Subject Matter***

5. Claims 5, 10, 14, 18, 21, and 22 are allowable over the prior art of record. The reasons for allowance can be found in paper no. 7.
6. Claims 2, 3, 7, 8, 11, 12, 21-26, and 28 are allowable over the prior art of record. The prior art does not teach or suggest the presently claimed method of homogenizing and extruding the presently claimed alloy composition, substantially as set forth in independent claims 2, 3, 7, or 8 (see in particular arguments pages 11-15).

Art Unit: 1742

*Conclusion*

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (703) 308-4757. The examiner can normally be reached on 7:30 am- 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7719 for regular communications and (703) 305-7719 for After Final communications.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Application/Control Number: 09/771,309

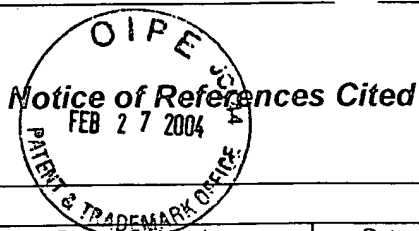
Page 6

Art Unit: 1742

GEORGE WYSZOMIERSKI  
PRIMARY EXAMINER

jcm 

October 20, 2003



Application/Control No. 09/771,309		Applicant(s)/Patent Under Reexamination TAGUCHI ET AL.	
Examiner Janelle Combs-Morillo		Art Unit 1742	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-			
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)			
✓	U	"ASM Specialty Handbook: Aluminum and Aluminum Alloys", ASM International, 1993, p. 68. ✓			
	V				
	W				
	X				

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
 Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.